

11. The method of claim 10 further comprising:
detecting occurrences of transition signals commanding the
dispensing gun to turn ON and OFF;
turning the dispensing gun ON and OFF in response to the
5 transition signals; and
detecting edges of fluid dispensed onto the substrate in response
to the dispensing gun being turned ON and OFF.

10 12. The method of claim 10 further comprising providing an output
relating to the delays.

13. The method of claim 10 further comprising:
providing a signal representing a presence of the substrate in a
proximity of the dispensing gun; and
15 sampling the transition signals and the feedback signals on a
periodic basis;
storing sampled transition signals and sampled feedback signals;
and
correlating the sampled feedback signals to the sampled transition
20 signals to determine the delays.

14. The method of claim 13 further comprising sampling the transition
signals and the feedback signals on a periodic basis determined by equal
increments of time.

25 15. The method of claim 13 further comprising sampling the transition
signals and the feedback signals on a periodic basis determined by equal
increments of relative motion between the substrate and the dispensing gun.

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16. The method of claim 13 further comprising identifying edges of the transition signals commanding the dispensing gun to turn ON and OFF.

17. The method of claim 16 further comprising identifying leading
5 edges of the transition signals representing commands to turn the dispensing gun ON.

18. The method of claim 16 further comprising identifying trailing edges
10 of the transition signals representing commands to turn the dispensing gun OFF.

19. The method of claim 16 further comprising identifying leading and
trailing edges of the transition signals representing commands to turn the
dispensing gun respectively ON and OFF.

20. The method of claim 16 wherein the method further comprises:
generating first, narrow, fixed-width pulses in response to edges of
the sampled transition signals; and
generating second, narrow, fixed-width pulses in response to an
edge of respective ones of the sampled feedback signals.

21. The method of claim 20 further comprising correlating the second,
fixed-width pulses to the first, fixed-width pulses to produce the delays.

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22. A method of monitoring an operation of a dispensing gun dispensing an adhesive pattern onto a substrate moving with respect to the dispensing gun, the method comprising:

5 providing gun ON and OFF signals representing times at which the dispensing gun should open and close, respectively;

opening and closing the dispensing gun in response to the gun ON and OFF signals, respectively;

10 providing feedback signals representing edges of the adhesive dispensed onto the substrate resulting from opening and closing the dispensing gun; and

determining delays between occurrences of the gun ON and OFF signals and corresponding edges of the adhesive resulting from the gun ON and OFF signals.

15 23. The method of claim 22 further comprising providing the gun ON and OFF signals from a pattern controller.

24. The method of claim 22 further comprising providing the gun ON and OFF signals from a gun driver.

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